





Meet the robot designed to inspire tomorrow's inventors and innovators. Kids and kids at heart can discover robotics, learn how to program, create accessories, dream up new ways to play, and explore the library of free apps. Fire up your imagination and change the way you think about play.







PROGRAMMABLE







BATTERY LIFE

## SUMMARY

TECH STARTUPS WANT TO CHANGE THE WAY YOU DRIVE

FINALLY! THE ROBOT FIGHTING ERA IS COMING...



THINGS TO KNOW ABOUT ASHLEY MADISON BREACH WHO'S AFFECTED

18



TWITTER'S STOCK FALLS BELOW IPO PRICE ON USER GROWTH WORRIES 06

OUT OF JUVIE, INTO NATURE: CALIFORNIA YOUTH RUN WILD WEBCAMS 10

GARTNER SAYS SMARTPHONE SALES GROWTH SLOWS 50

APPLE'S CHINA BUSINESS STRONG IN JULY AND AUG: TIM COOK TO CNBC 54

STUDY: FEMALE DIRECTORS MAKE WORK GAINS; MINORITIES LAG 94

SCIENCE: SCIENTISTS CREATE 360-DEGREE IMAGES OF HAWAII CORAL REEFS 100

TUNEIN RADIO APP STARTS \$8 TIER WITH MLB, SOCCER, AUDIOBOOKS 122

Columns

TOD	10 AD	DC	64
IUP	10 AP	PS (	0 7 6

itunes review 72

TOP 10 SONGS 112

TOP 10 ALBUMS 114

TOP 10 MUSIC VIDEOS 116

TOP 10 TV SHOWS 118

TOP 10 BOOKS 120





## TVVITTER'S STOCK FALLS BELOVV IPO PRICE ON USER GROVVTH VVORRIES

Twitter's battered shares dipped below their IPO price on Thursday as investors worry about the company's ability to grow its user base.

Shares of the San Francisco-based short messaging service fell 5.8 percent to close at \$26, after trading as low as \$25.92 during the day amid a broader market decline.

Twitter went public in November 2013 at an initial public offering price of \$26 per share.

The stock is down 29 percent since Twitter's July 28 earnings report, when it warned that boosting its user growth rate will take a long time.

The challenge for Twitter is broadening the appeal of its service to the mass market amid fierce competition from Facebook as well as messaging apps like WhatsApp or Snapchat. While many people are familiar with Twitter, the company has not been able to convince people that they need it.

In addition, Twitter is also without a permanent CEO, although co-founder Jack Dorsey is at the helm on an interim basis.









#### OUT OF JUVIE, INTO NATURE: CALIFORNIA YOUTH RUN VVILD VVEBCAMS

Harry Grammer, the CEO of a Los Angeles-based nonprofit that works with young adults, wanted to give kids recently out of the juvenile justice system real jobs and marketable skills.

Three years ago, a chance meeting gave Grammer what he wanted.

Explore.org, a philanthropic media branch of the Annenberg Foundation, has a network of more than 50 high-definition web cameras streaming live images of wildlife around the clock. The organization offered to fund a program that would hire his alums, regardless of their previous offenses, as camera operators earning hourly wage between \$10 and \$15 with benefits.

Since then, New Earth has employed more than 30 camera operators, given them technical training and taught them film editing, production and multimedia skills. More than a million people watch the feeds online every month to get a glimpse of the most remote regions of the world, but few know that behind those cameras are young Los Angeles offenders, some of whom have never even been down the road to Disneyland.

But now they virtually step into the beehives in Bavaria, Germany, stand in the rough waters of Alaska where brown bears fish for salmon or watch pandas clumsily wrestling each other in China.

Brandon Monroe was stabbed 15 times when he was 15 years old. He said the attack and robbery in a dark Los Angeles-area alley turned him from a good person to "pure cold." Yet after years of crime and serious time in juvenile hall, at age 19 he's come in from the cold to spread warmth - in the form of penguins and brown bears, walruses and chipmunks.

From his desk in Culver City, Calif., and with simple shifts of a joystick, Monroe guides people to watch exotic animals around the world, remotely controlling cameras that capture the wonders of wildlife.

"Nature has no judgment," Grammer said. "I always tell my kids, when you go into nature, you don't see gang graffiti on the walls, you don't hear police sirens, you don't see people being violent with each other, you don't hear loud noises of hate, aggression, and racism."

Grammer's organization works with young men and women from 15 detention centers in Southern California during and after incarceration. Grammer, who once served time on residential burglary charges, founded the organization in 2004 to keep juvenile offenders off the streets and out of trouble.

For teens with a history of incarceration, finding employment - especially jobs that









lead to successful careers - proves to be an unsurmountable challenge. Many fall into unemployment, poverty, and crime.

There's also a program called "Dog Bless You" with shots from domestic animal shelters, whose great Danes Monroe says he favors over all the exotic competition.

Many New Earth camera operators saw animals treated with cruelty in their neighborhoods, where pit-bull brawls and razor-bladed cockfights were considered entertainment.

Monroe said he never gave his own future, much less the welfare of animals, any thought before joining New Earth. He always had a roof over his head as a child, but said he never got the kind of support he needed. His mother was in-and-out-of-prison, leaving his father to raise five children after his own incarceration. Two of his younger siblings and all of his uncles are still in jail.

Committing petty crimes easily turned into a habit and Monroe became a frequent visitor to juvenile jail.

Eager for another chance but unsure of where to begin during his seventh and final jail visit, Monroe decided that if he didn't get better, he would "go all out."

The animals led him on a different path. He said he has grown more affectionate, more nurturing.

"It makes me see things I've never seen before," Monroe said.

"The animals give me a perspective on how to take care of people," he said. "I kind of compare animals to babies. Just watching the little baby is amazing."





is Now available on

Apple iPhone/iPad/Android/Windows8 and Web



Download And Read it on Magzter



From your Apple iPad please go to App Store and search for Magzter



From your Android Tablet please go to Google Play and search for Magzter



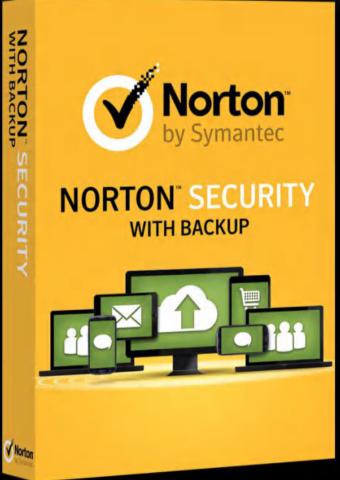
From your Windows8 divice please go to Windows Store and search for Magzter











### NORTON SECURITY WITH BACKUP

**NOW WITH NORTON™ FAMILY PREMIER** 

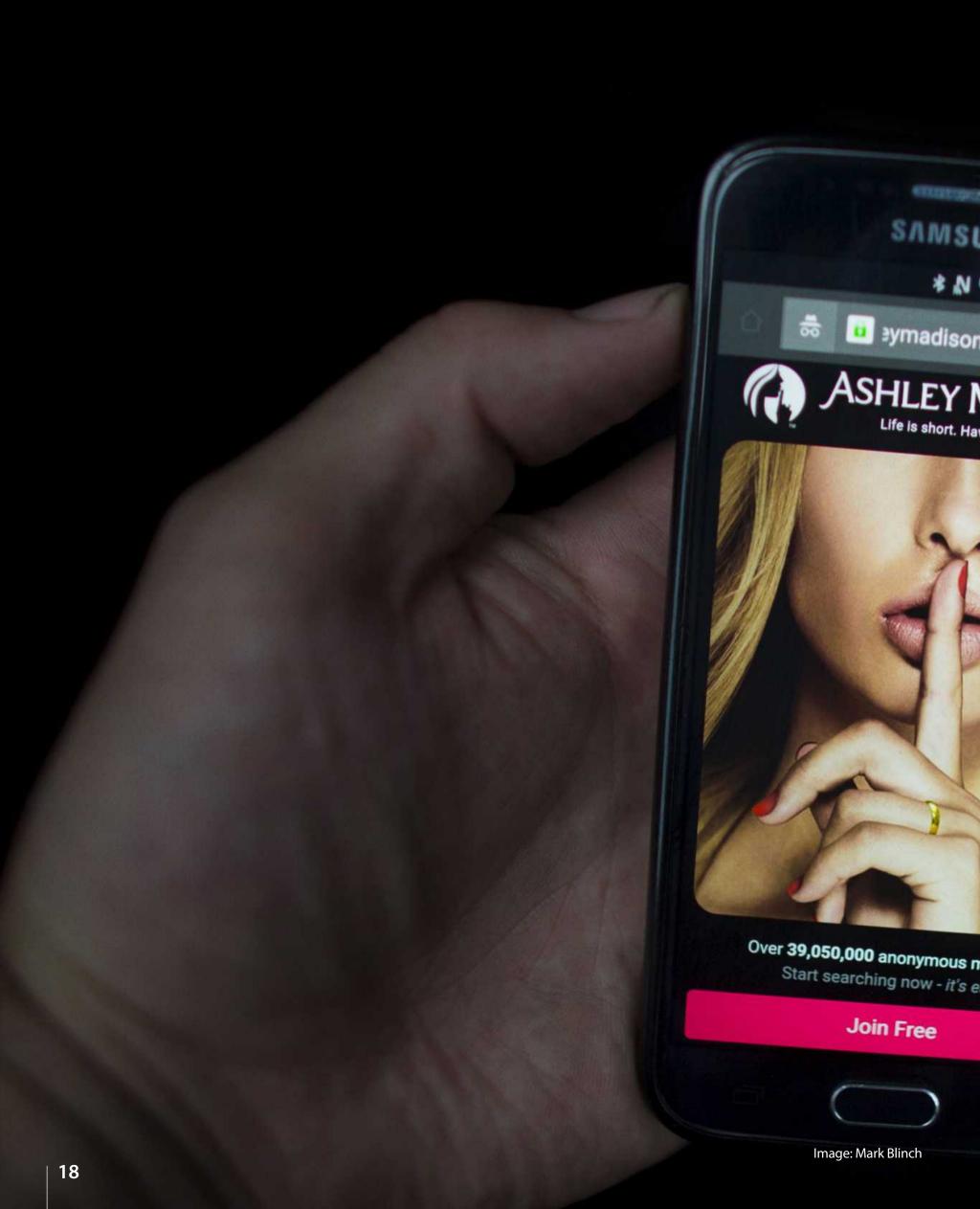
Powerful Norton protection, plus secure PC backup, for your family of PCs, Macs, smartphones and tablets

- Real-time protection against existing and emerging threats like viruses and malware
- Tools to help your kids safely explore the Internet and away from unsafe Web content
- Includes 25 GB of online storage for PCs



**Save \$20** 

**BUY NOW** 



## THINGS TO KNOW ABOUT ASHLEY MADISON BREACH WHO'S AFFECTED



The spectacular breach at adultery site Ashley Madison gave rise to sordid tales of horrified spouses rushing to get tested for sexually transmitted diseases, frantic phone calls to lawyers and torrid confrontations with spouses. But hard information has been hard to come by. Even the true number of people affected by the breach has been clouded by uncertainty over how many of the roughly 39 million members Ashley Madison claims to have are genuine.

Here are some things to know about the adultery breach that has the world talking





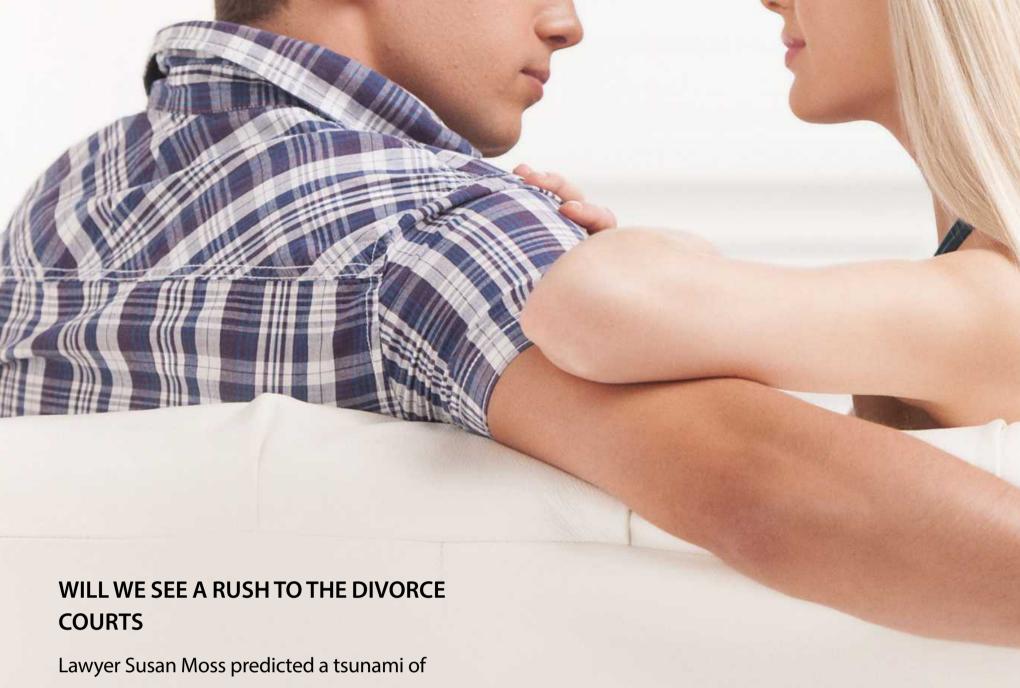
#### **HOW MANY PEOPLE HAVE BEEN AFFECTED**

Ashley Madison claims to have had about 39 million members, but security experts who examined the internal records put the number of email addresses at 36 million. Of those, many appear to be bogus and some may have been registered with the site without their owners' consent. Even among those who did, it's not clear how many used the service to seek extramarital affairs. The Associated Press spoke to a dozen people who said they signed up once or only visited a couple of times without actually meeting anyone. One St. Louis-area resident told AP he and his wife registered his email with the site when they visited out of curiosity several years ago. Neither ever returned. He spoke on condition of anonymity because he did not want to draw attention to his connection to the site.

#### WHO'S LOOKING THROUGH THE DATA

Several governments have announced investigations following revelations that bureaucrats signed up to the adultery website using their work emails. But suspicious spouses - or just nosy acquaintances - are also browsing the data. The St. Louis man told AP he was alerted when a friend called him to say he found his name in the dump. Chicago-based Charles Black, who along with partner Jacob Gilman briefly ran a website allowing people to check emails and telephone numbers against the database, said he recorded 500,000 unique visitors in just 48 hours.

Our motivation for doing this is mainly just the fun of creating a tool which people on the Internet find useful, Black said in an email.

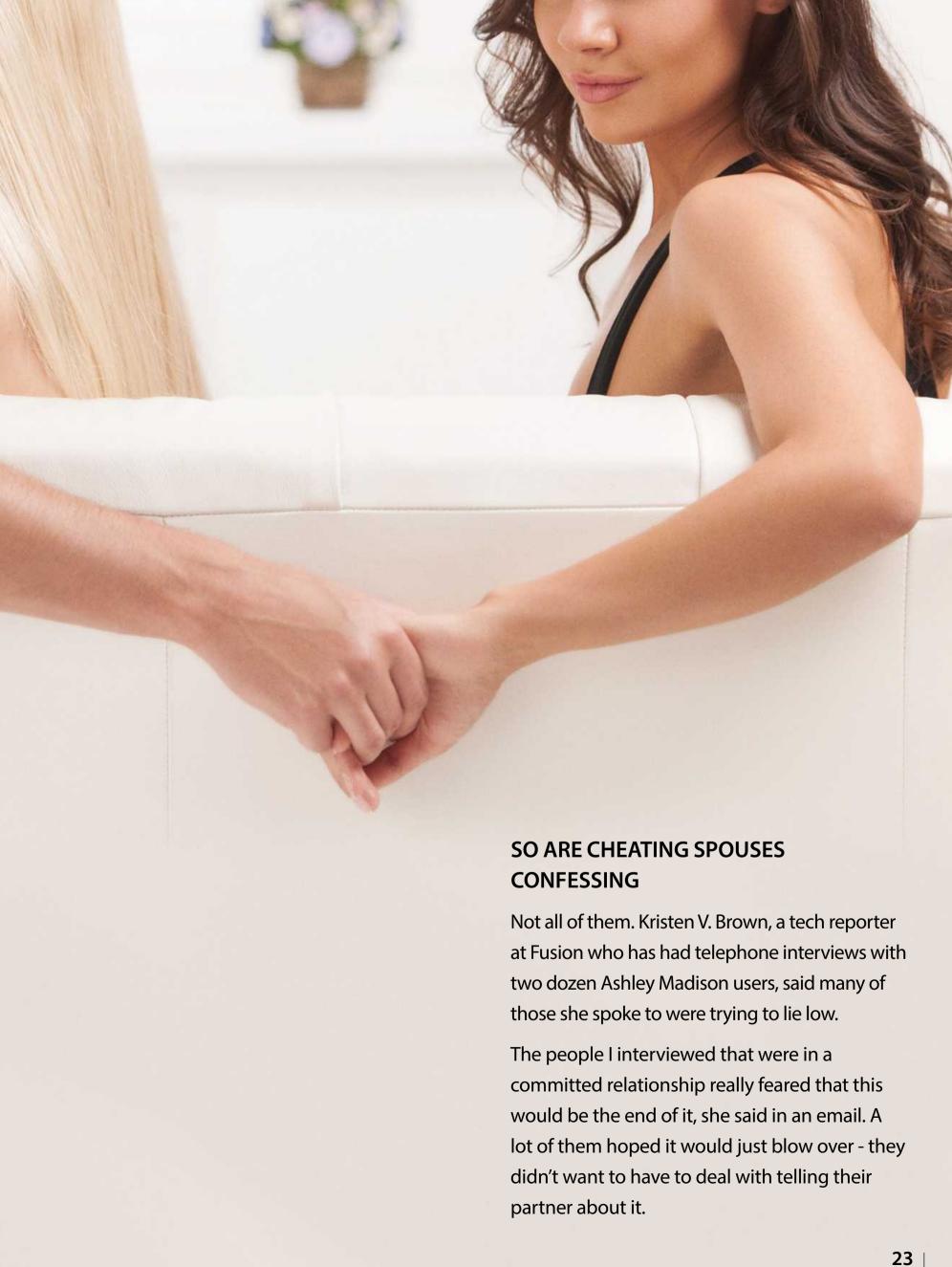


Lawyer Susan Moss predicted a tsunami of new cases, but family law experts are divided whether the hack will lead to significant increase in the divorce rate. New York divorce attorney Michael DiFalco said he believed there would be a dozen clients caught by text message for every client that might get caught this way.

There are scattered signs of extra interest. Nigel Shepherd, an attorney with British firm Mills & Reeve, told The Times of London that a woman had contacted him after finding her husband's name in the dump - a case British media are already describing as the first Ashley Madison divorce.

Moss, a partner with New York firm Chemtob Moss and Forman, advised wayward husbands and wives to come clean quickly.

The news always is better received if coming from the cheating spouse directly, she said.







#### WHAT DOES ASHLEY MADISON SAY

Not much.

The hackers who struck Ashley Madison have accused the site of filling it with fake profiles and extorting fees for wiping profiles that were never truly deleted. Avid Life Media Inc., the site's owner, has not returned AP messages about the alleged practices.

In fact, the site has said little beyond a statement released Tuesday in which it slammed the breakin as "an act of criminality."

"These are illegitimate acts that have real consequences for innocent citizens who are simply going about their daily lives," the company said.

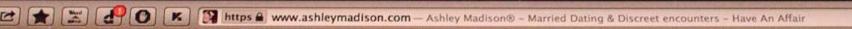
#### DELETED ONLINE INFORMATION NEVER ACTUALLY GOES AWAY

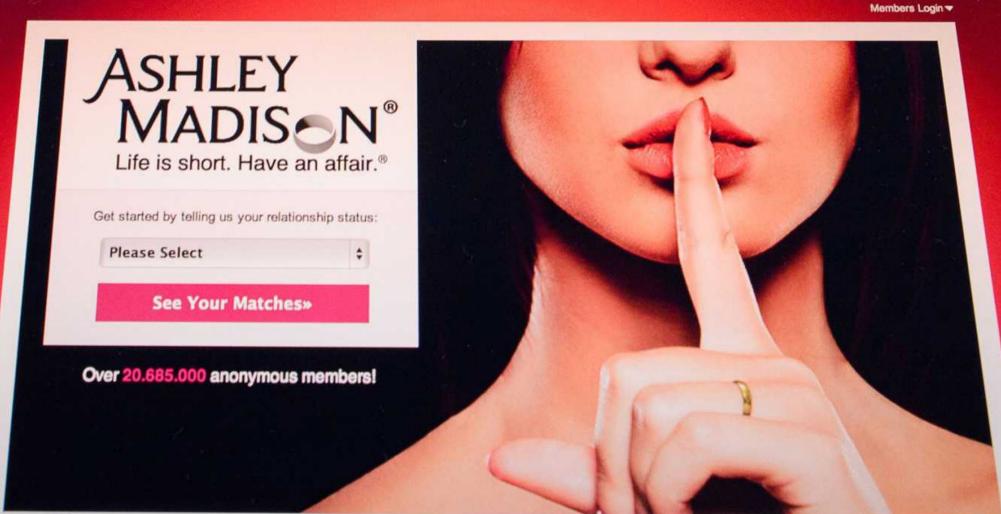
The Ashley Madison hack is a big reminder to all Web users If you submit private data online, chances are it will never fully be deleted.

The hackers, who stole the data about a month ago and then posted it online this week, claimed in a statement that part of the reason for the theft was Ashley Madison's fraudulent promise to fully delete users' information if they paid the company a \$19 fee.

The website - whose slogan is Life is short. Have an affair - is marketed to people looking for extramarital relationships. It purports to have about 39 million members.









As seen on: Le Parisien, Le Figaro, Elle, Huffington Post, France 2, Canal+

Ashley Madison is the world's leading married dating service for discreet encounters









The hackers said the company failed to delete the information, even though it collected the fees. Toronto-based Avid Life Media Inc., Ashley Madison's parent company, hasn't commented on the hackers' accusation. A company spokesman didn't respond to multiple emails seeking comment.

It's virtually impossible to exist in modern society without putting at least some personal information online. Many people can't get through a day without using the Internet to shop, pay a bill, or check their credit card balance.

People have become accustomed to trusting their most precious personal information to companies. But they also need to know that all of that information is being shared more than they would expect, privacy experts say.

Before you hit submit, stop and think before giving up your personal information to any kind of website, said Michael Kaiser, executive director of the National Cyber Security Alliance, an industry-funded group that educates consumers about cybersecurity.

Personal information is like money, and you don't just give away your money, Kaiser says. In the environment we're in right now, you have to value it and think about protecting it everywhere you go on the Internet.

That means taking a look at a website's business to get an idea of how much they value information security and even asking them about their data retention practices. Banks, which deal in financial information, and large retailers, who have a vested interest in getting people to shop online, are probably safer bets than a dating site.

Ashley Madison actually charges you to remove your information when you remove your account, he says. That's a big clue about how they feel about your personal information.

People also need to sometimes take a pass on convenience in the name of online security.

Many consumers like it when e-commerce sites have their credit card and other information on file, or when Web browsers automatically fill in forms with their name, address and other details, says Peter Tyrrell, chief operating officer of the data security firm Digital Guardian. Meanwhile, worries about data theft and loss have prompted companies to back up important information in multiple places.

But both practices increase the likelihood that information could be leaked or shared. And it means that even when a person thinks that their information has been permanently deleted, chances are there are still copies floating around somewhere.

Ashley Madison is a company with a service that's completely predicated on privacy, Tyrrell says, adding that that characteristic sets it apart from many traditional e-commerce sites such as retailers.

Here the capital, so to speak, isn't a credit card or consumer goods. The capital is personal information that if released could be ruinous personally, and financially too.

Breaches, whether they be at a major retailer such as Target Corp., a health insurance company such as Anthem Inc., or Ashley Madison, have become so common that people should give some serious thought before putting personal information





online, says Caleb Barlow, a vice president at IBM's security division.

And while Social Security numbers weren't involved Ashley Madison hack, people should be especially wary of using them as a backup password to access online information, given the potentially disastrous consequences that could result if they're intercepted, he says.

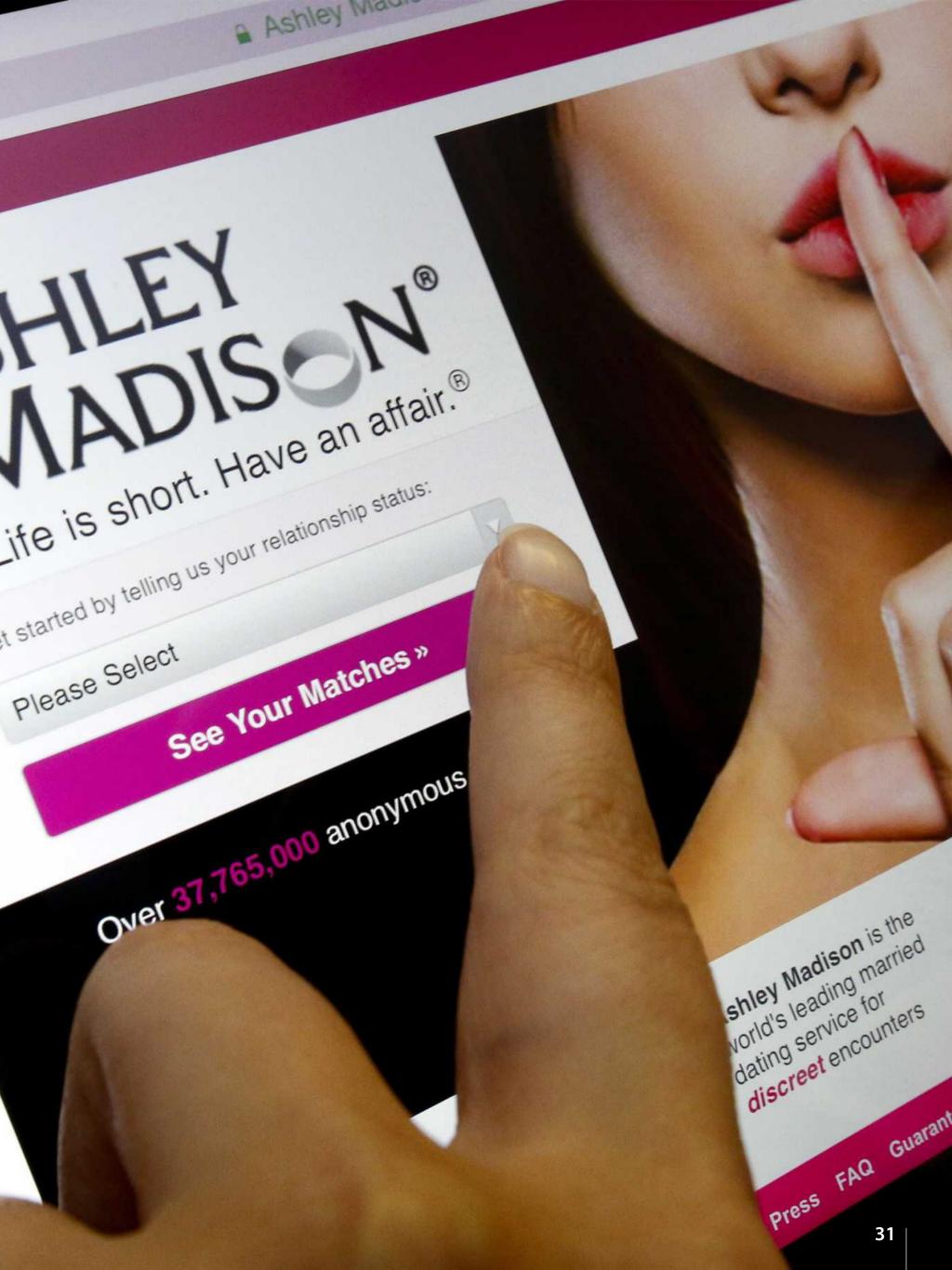
Why are we using Social Security Numbers for both identification and access he questions. Any data that can never be changed can be used for identity, but should never be used for access.

And no matter how legitimate a company or website may be, people need to be aware that they're rolling the dice every time they hand over personal information.

Scott Vernick, partner and head of the data security and privacy practice at the law firm Fox Rothschild LLP, says consumers have the right to expect a certain level of online security, depending on the industry standards of the company they're dealing with.

But those expectations have to be muted by the knowledge that they're always taking a risk, whether they're ordering from Amazon Prime or from Ashley Madison, Vernick says.





# YOUR BRAND HAS BEEN IN SUCH COOD COMPANY GOOD COMPANY



#### APPLEMAGAZINE.COM

It's all about Apple

The right magazine for the right audience

#### **AOL** Computer Checkup

# Clean it up. Speed it up. Lock it up.

Free your computer from the junk dirtying up its hard drive with AOL Computer Checkup, the one-click fix that helps clean and speed up your slow PC.

- Remove traces of internet browsing history and encrypt sensitive files
- Get rid of the useless junk left behind when installing and uninstalling programs
- Back up and recover accidentally deleted files
- Analyze system settings and identify ways to improve security

**Sign up now**, and then sit back, relax and let our 24 powerful PC tools clean, speed up and optimize your PC automatically.

TRY IT FREE FOR 30 DAYS

Annual subscription for just \$39.95 per year begins upon registration.

To avoid being charged the recurring subscription fee,
simply cancel before the free trial period ends.





We all think we know about robots. After all, they take center stage in blockbusting movies like Terminator Genisys and Transformers: Age of Extinction, and clash to spectacular effect in TV shows like ABC's recently revived BattleBots. However, so many question marks still arise when we look closer at the real world of robots. Many modern depictions of robots can seem, in light of the cold, hard facts about current robot technology, ambitious to the point of mythical. Still, how close is humanity to putting into action robots that are genuinely intelligent, large scale and capable of combat in both athletic and military environments?

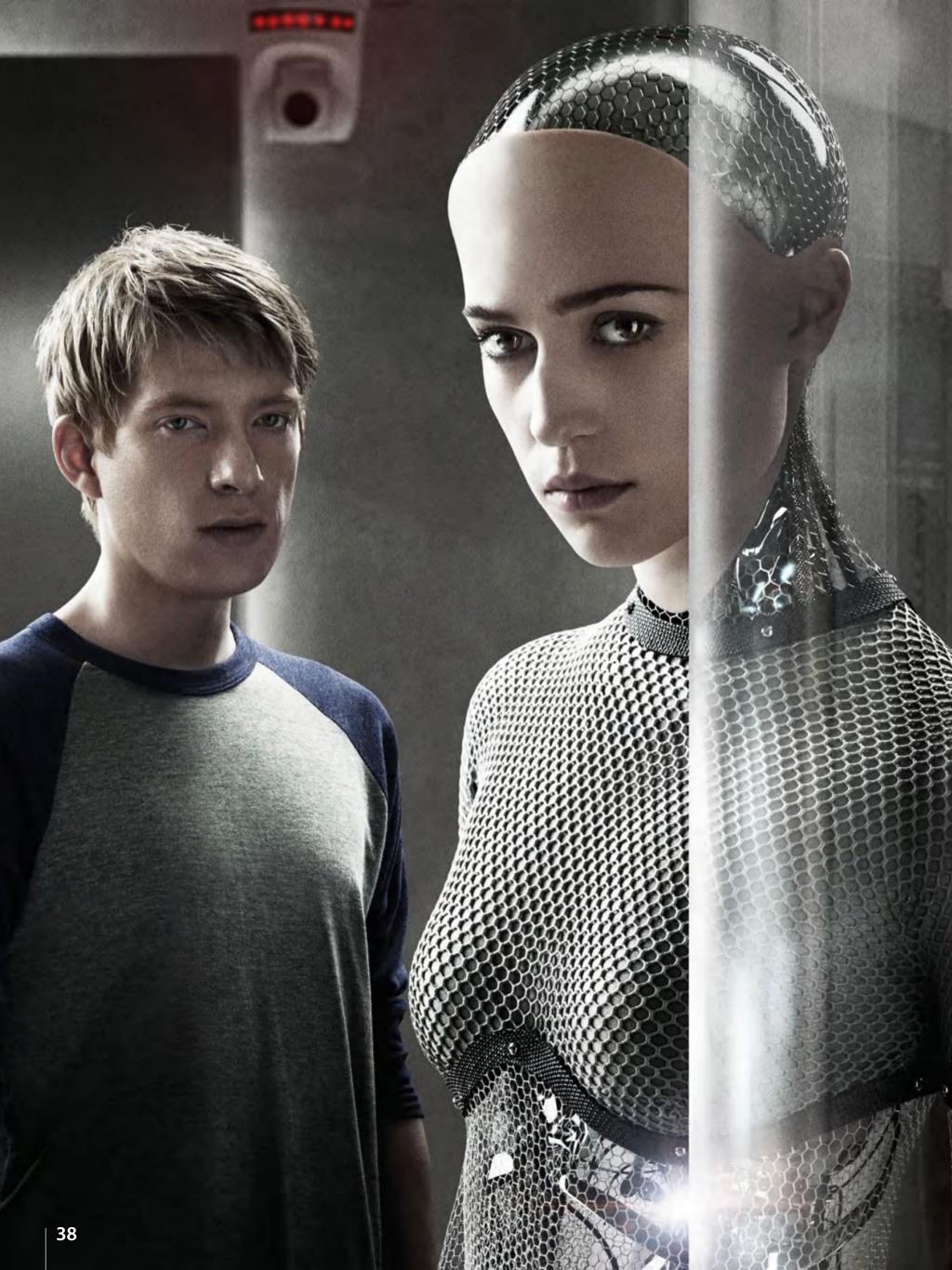
#### VILLAINOUS, HEROIC, MISUNDERSTOOD... FICTIONAL ROBOTS DIFFER GREATLY

The public imagination has long been fascinated by robots. Taking robots to be defined as computers in a humanoid or mobile form, they have been depicted as talking bronze and clay statues in classical literature by the likes of Homer, Plato and Tacitus, and also mentioned by nineteenth century scribes including Charles Dickens and Jerome K. Jerome. Hollywood history, meanwhile, is littered with memorable giant automatons; two cinematic icons, King Kong and Godzilla, even got robotic doubles, Mechani-Kong and Mechagodzilla.

More modern and immediately recognizable fictional robots can differ hugely in their nature. The trope of villainous and threatening robots intent on the destruction of humanity or the earth is a well-worn one. Some fictional robots, however, are heroic in their defense of humans, like Detroit's futuristic law enforcement officer RoboCop. And then there are robots like the









little boy David in Steven Spielberg's A.I.: Artificial Intelligence and the title character of the animated film The Iron Giant, who are often well-meaning, but misunderstood and persecuted by humans.

Arguably one major reason why there is such a kaleidoscope of opinion concerning what future robots could be like is that robots are easy to simultaneously love and fear. Sure, they could be put to a wide range of useful, practical purposes - from running hotels and restaurants to assisting in disaster relief situations. However, robots landing in the wrong hands could be potentially used for much more destructive purposes - in turn necessitating other robots to counter their threat, and so the emergence of a very new form of warfare.

### HUMANOID... BUT NOT YET CONVINCINGLY HUMAN

Could we soon frequently see the kind of advanced fighting robots depicted in movies like Transformers and Real Steel? The answer remains unclear. Alex Garland, the director of this year's well-received sci-fi drama Ex Machina, which tells the story of an leading IT company's development of a humanoid robot called Ava, described the film's time period as "ten minutes from now", explaining that "if somebody like Google or Apple announced tomorrow that they had made Ava, we would all be surprised, but we wouldn't be that surprised".

However, this kind of bold statement would be difficult for visitors to the recently opened Hennna hotel, near the Japanese city of Nagasaki, to swallow. This hotel has been widely reported as the world's first with robot staffers, which helps





to explain why The Guardian's Monisha Rajesh was left distinctly disappointed following a stay in August. She found the robots at reception, including a female lashes-blinking humanoid, surprisingly limited in their functionality, leading her to observe that Henn-na "turns out to need a surprising amount of human intervention".

Rajesh's disappointment is understandable given Japan's status as a world leader in robotics technology. She was likely expecting robot assistants more along the lines of ASIMO, the advanced humanoid droid manufactured by one of the country's tech standard-bearers, Honda. That cute robot, with a height measuring 4 foot and 3 inches, was introduced back in 2000 and intended to enhance the quality of life for people with impaired mobility.

ASIMO has demonstrated many human-like abilities, including kicking a football and handling stairs.

## WHAT CAN WE EXPECT FROM ROBOTS IN THE NEAR FUTURE?

In 2007, Honda brought out a new, more intelligent ASIMO capable of working with other ASIMO robots and carrying out tasks including pushing carts and serving tea. That certainly seems like the kind of robot that could be especially useful in a hotel. However, given that Honda has yet to even make any version of ASIMO commercially available, can the world really afford to feel confident of placing a huge number of useful humanoid and auto-guidance machines in various buildings, including not only hotels but also restaurants, schools and hospitals, in what remains of the 2010s?





## ROBOT FIGHTING TO "BECOME ONE OF THE TOP THREE SPORTS IN THE WORLD"?

LS-3 must boast a rugged structure capable of protecting its delicate innards in dangerous terrain. So, is it another major step towards strong robots regularly clashing on the battlefield - another instance of science fiction, in this case the violent Terminator and Transformers movies, slowly becoming science fact? We reckon that not only could it indeed be, it is far from the only significant step.

In July this year, two robotics firms from opposite sides of the Pacific Ocean - US company MegaBots and Japanese rival Suidobashi Heavy Industries - agreed to stage a duel between their robots. This is no mere offscreen rehash of BattleBots; the robots will be huge, human-piloted by humans and wielding cannons capable of firing big paintballs at more than 100mph.

MegaBots co-founder Brinkley Warren has confidently told CNBC of his belief that "the MegaBots league that we're building will become one of the top three sports in the World within 10 years in terms of global audience, revenue, and engagement". It's a vision reminiscent of the world portrayed in the 2011 sci-fi sports drama movie Real Steel, in which robot boxers have replaced human boxers.

However, Warren could be waiting much longer than he currently expects before there is a sufficiently high number of large arenas suitable for regular battles between giant robots. Neville Upton, who runs Gfinity, the company that gave the UK its first e-sports arena, has warned that "because it is a new









sport and new ideas there is a lot of pioneering to be done. It's going to be a long journey".

## HOW ROBOTICS COULD UNEXPECTEDLY TRANSFORM THE MILITARY

Robots with the build and abilities to effectively battle in arenas seem like ideal candidates for battle in war zones, too. It appears that BattleBots could also be seeking to build robots for this purpose, having declared in a video made public in August that the dream of "the giant robot battles of science fiction" becoming real "is just one year away." That timescale might be too ambitious, but there is certainly at least one major example of how the most renowned scifi movie franchise in history could be about to significantly influence military practice.

In June, it was reported that the British company Malloy Aeronautics was developing a hoverbike which strongly draws upon drone technology and has already been manufactured in working remotecontrolled forms. The project has even attracted interest from the US military meaning it isn't beyond possibility that, before too long, many soldiers could be flying on hoverbikes like Stormtroopers riding speeder bikes in the Star Wars films. Well, if it's good enough for soldiers of the Galactic Empire...

by Benjamin Kerry & Gavin Lenaghan







# GARTNER SAYS SMARTPHONE SALES GROWTH SLOWS



Worldwide sales of smartphones in the second quarter grew at the slowest pace since 2013 as sales in China declined for the first time, according to research firm Gartner Inc.

Gartner said Thursday that smartphone sales grew 13.5 percent to 330 million units in the second quarter compared with a year earlier. While demand continues to increase in emerging markets, Gartner says overall smartphone sales were mixed. Smartphone sales in China fell 4 percent year-over-year - the first such decline for the world's most populous country and biggest market for smartphones.

China accounted for 30 percent of total smartphone sales in the second quarter. But Gartner says it has reached saturation, as its phone market is driven by replacement purchases instead of first-time buyers.

Samsung "premium" phones continued to be challenged by Apple's large-screen iPhones during the quarter, Gartner said. Samsung lost market share while Apple gained some.

52





# APPLE'S CHINA BUSINESS STRONG IN JULY AND AUG: TIM COOK TO CNBC

Apple Inc's China business experienced "strong growth" in July and August, Chief Executive Tim Cook told CNBC on Monday, seeking to assuage investor concerns over the company's prospects in a market considered critical for its growth.

iPhone activations in China had accelerated over the past few weeks and the App Store in China had its best performance of the year over the past two weeks, Cook told CNBC in an emailed response to questions about Apple's business in China.

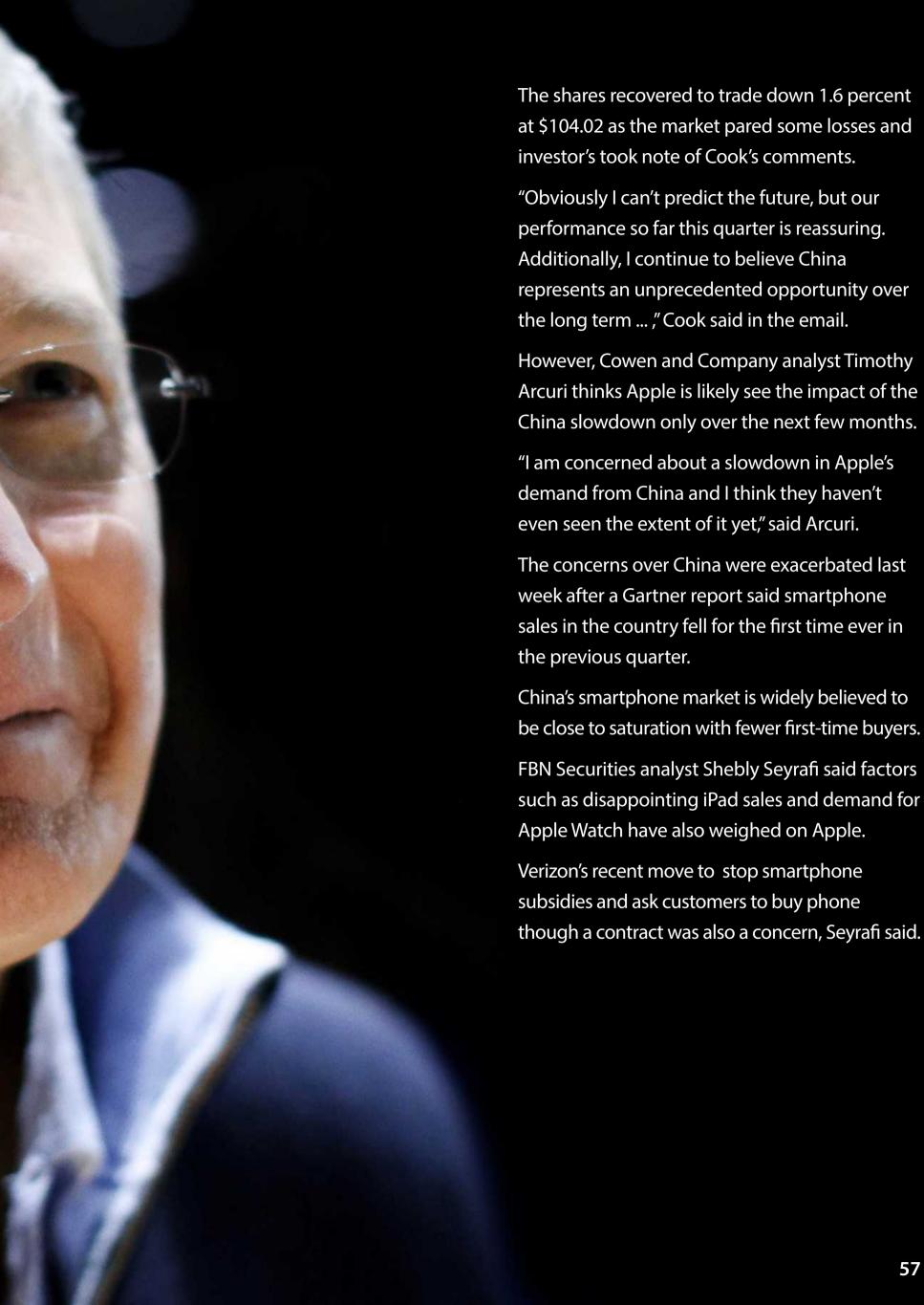
A slump in China's stock market, slowing economic growth and Beijing's move last week to devalue the yuan have added to Apple's investors' concerns about rising competition from local rivals Xiaomi Inc [XTC.UL] and Huawei Technologies Co Ltd [HWT.UL]. Apple gets over a quarter of its sales from China.

Apple's shares slumped as much as 13 percent to a year-low of \$92 in early trading on Monday, amid a sell-off in the broader U.S. market.









# TECH STARTUPS VVANT TO CHANGE THE VVAY YOU DRIVE

A veteran computer scientist hates sitting in his car at stop lights, so he creates software that makes the experience less annoying. A former engineering professor wants to double the range of today's electric vehicles. And an aeronautics expert believes flying cars shouldn't be science fiction.

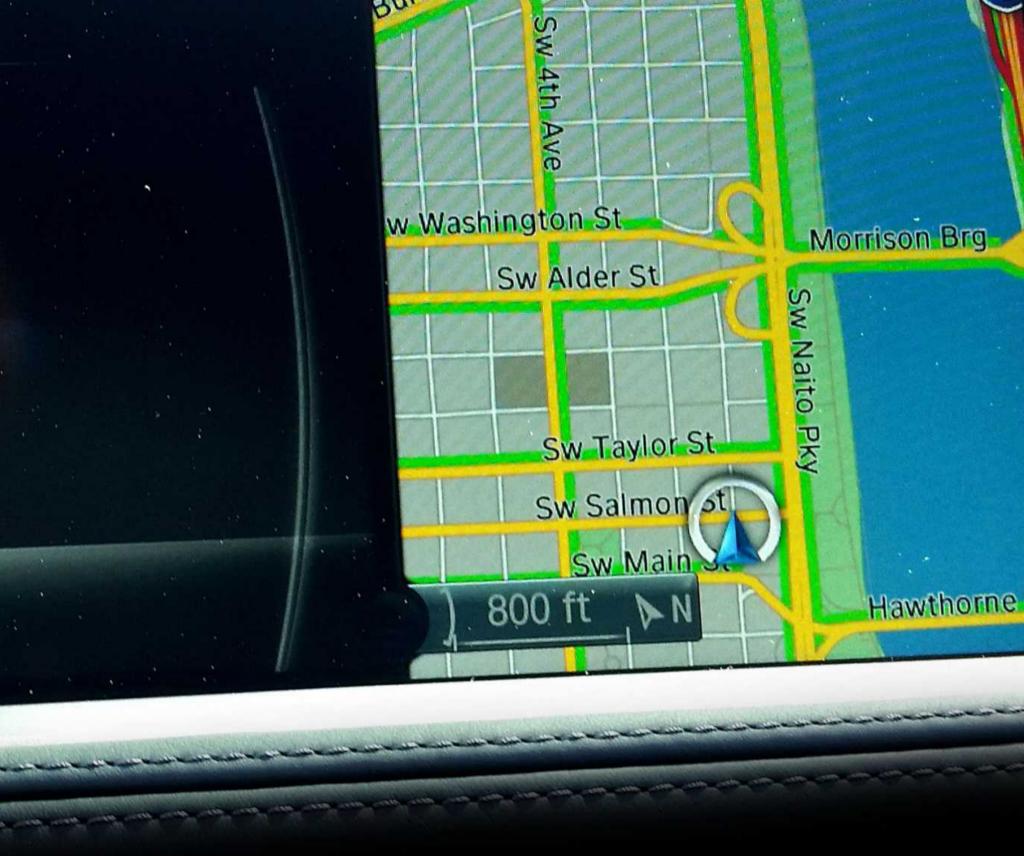
It's no secret that technology is changing the car industry. The major automakers, as well as tech giants such as Google and possibly Apple, are laying the groundwork for the first driverless cars.

Meanwhile, a number of engineers and entrepreneurs have started their own companies to tackle other automotive challenges. Here are six startups that want to change the way you drive:









#### **CONNECTED SIGNALS:**

Traffic lights bring order to intersections, but have their inconveniences: They turn red when you're in a hurry; they take forever to change green. And then your mind wanders while you wait - until the guy behind you starts leaning on his horn.

Entrepreneur and computer scientist Matt Ginsberg hates red lights. So he started Connected Signals, based in Eugene, Oregon, to collect real-time data from cities that synchronize their traffic signals. The company's smartphone app tells motorists if an upcoming signal is about to change color. It shows drivers how long they'll have to wait if a light is red - and chimes a warning just before it turns green.

The app helps prevent distraction, unnecessary acceleration and delays, Ginsberg says. BMW has added it to its driver display. Ginsberg also sees an opportunity in selling data for automotive systems that shut off a car's engine to save gas during longer red lights. One hurdle is getting the raw data from individual cities: Ginsberg has agreements with about 100 towns and hopes to cover half the United States by 2017.





#### **METROMILE:**

That little diagnostic port under your car's dashboard isn't just for mechanics. It can provide useful information for drivers and insurance companies, too.

Several startups use matchbox-sized devices that plug into the port and send information on a car's performance to the driver's smartphone. San Francisco startup MetroMile goes further. It sells car insurance on a pay-per-mile basis, using a similar device to verify the miles driven.

Other insurance companies are trying similar devices to track drivers' behavior, but MetroMile says it won't penalize a customer for speeding or slamming the brakes. The company promises significant savings for people who don't drive much. That may limit the potential market, although CEO Dan Preston says drivers also get useful information from MetroMile's app.

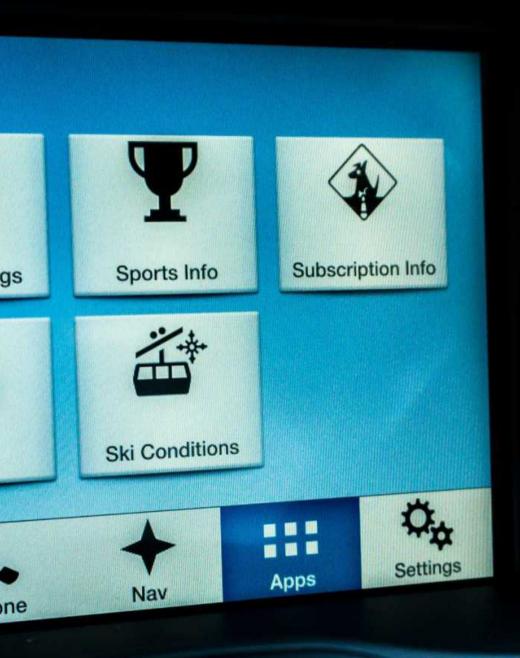


#### **CRUISE:**

You don't need to wait years to enjoy autonomous driving. At least that's the premise behind Cruise Automation's "highway autopilot" kit.

Cruise engineers have retro-fitted some recent Audi models with prototype kits consisting of rooftop sensors, a computer in the trunk and controls that fit behind the steering wheel. Founder Kyle Vogt says the system will keep a car within its freeway lane, while steering around curves and maintaining safe distance from other vehicles.

Vogt, a software engineer who helped launch streaming video service Twitch.tv, told The Associated Press in December that he hoped to deliver the first Cruise kits to customers this year. But he stressed the importance of testing before releasing the product, to ensure it is safe. While Cruise received a permit in June to conduct tests on California highways, a spokesman recently declined comment on its timetable.



#### **SAKTI3:**

Most electric vehicles on the market only go 100 miles on a charge. A better battery is the industry's "Holy Grail," says investor Quin Garcia of Auto Tech Ventures, which funds automotive startups.

Sakti3, based in Ann Arbor, Michigan, is among several startups trying new approaches to lithium-ion batteries. Founder Ann Marie Sastry, a former engineering professor at the University of Michigan, was invited to a White House event this month to explain her ideas for making powerful batteries more cheaply.

It's not enough to come up with an idea for a new battery, Sastry said. "If you can't make it cost-effectively, you can't have an impact." She's using computer simulations to design processes for making solid-state batteries that are lighter and hold twice the energy, providing more range. Appliance-maker Dyson Inc. has invested in Sakti3 and wants to use its technology. General Motors is also an investor.



#### **TERRAFUGIA:**

Terrafugia, a privately backed startup in Woburn, Massachusetts, admits on its website that flying cars have become a pop-culture symbol for dreams that don't come true. CEO Carl Dietrich wants to change that.

Two years ago, Dietrich and his co-founders - all MIT graduates - wowed observers at a Wisconsin air show by flying a gasoline-powered light plane the size of an SUV, which can fold its wings and meet legal requirements for highway driving. The company hopes to deliver a version to customers in 2017, at an anticipated price of \$279,000.

Terrafugia is also working on a concept for a sleeker, electric-powered vehicle with rotors for vertical takeoff. But Dietrich acknowledged it will take years to achieve his goal of using software and automation to build a car that doesn't require a pilot's license to fly.

"Our first product is very much an airplane that can be driven," Dietrich says, "but it's putting our company in position to make a car that can fly."

# TOP Free Apps

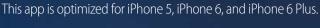


#### #01 – Facebook Messenger

By Facebook, Inc.

Category: Social Networking

Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPhone 6. Physics and iPhone 6. Physics and iPhone 6. Physics are included in the property of the property in the





#### #02 – Facebook

By Facebook, Inc.

Category: Social Networking

Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.



#### #03 – Instagram

By Instagram, Inc.

Category: Photo & Video

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.



#### #04 – YouTube

By Google, Inc.

Category: Photo & Video

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.



#### #05 - Snapchat

By Snapchat, Inc.

Category: Photo & Video

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.



#### #06 - Ball Jump

By Ketchapp

Category: Games

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.



#### #07 – Layout from Instagram

By Instagram, Inc.

Category: Photo & Video

Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.



#### #08 - Pandora Radio

By Pandora Media, Inc.

Category: Music

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.



#### #09 – Google Maps

By Google, Inc

Category: Navigation

Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.



#### #10 – Tap Sports Football

By Glu Games Inc

Category: Games

Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.





#### #01 – OS X Yosemite



#### #02 – App for Instagram



**#03 – App for Youtube**By Joacim Ståhl
Category: Social Networking



#### #04 – Streaming for Netflix



#### #05 – App for Facebook



#### #06 – Kindle

By AMZN Mobile LLC Category: Reference Compatibility: OS X 10.6 or later



#### #07 – Twitter



#### #08 – ooVoo Video Call, Text and Voice



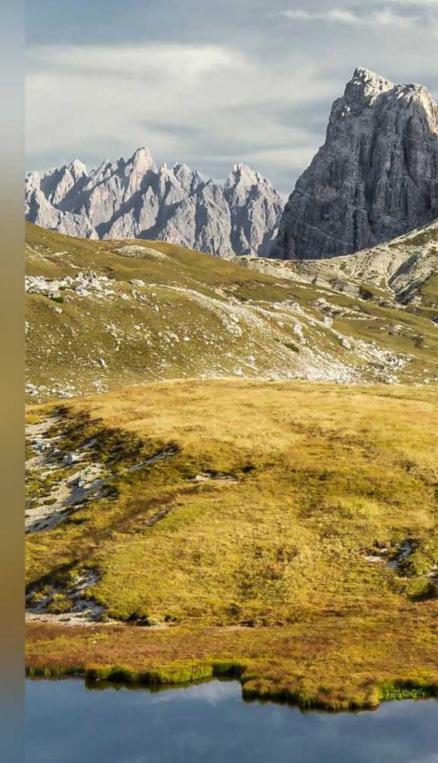
#### #09 - Microsoft OneNote



#### #10 – Bitdefender Virus Scanner

By Bitdefender SRL Category: Utilities





Mac OS X





#### #01 - Minecraft - Pocket Edition

By Mojang

Category: Games / Price: \$6.99

Requires iOS 5.1.1 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.



#### #02 - Five Nights at Freddys 4

By Warner Bros.

Category: Games / Price: \$0.99

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.



#### #03 - Heads Up!

By Warner Bros.

Category: Games / Price: \$0.99

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.



#### #04 - Akinator the Genie

By Elokence

Category: Entertainment / Price: \$1.99

Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.



#### #05 - Bloons TD 5

By Ninja Kiw

Category: Games / Price: \$0.99

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.



#### #06 - Plague Inc.

By Ndemic Creations

Category: Games / Price: \$0.99

Requires iOS 4.3 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.



#### #07 – Terraria

By 505 Games (US), Inc.

Category: Games / Price: \$1.99

Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.



#### #08 – THE GAME OF LIFE Classic Edition

By Electronic Arts

Category: Games / Price: \$0.99

Requires iOS 5.1.1 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.



#### #09 - Geometry Dash

By RobTop Games AB

Category: Games / Price: \$1.99

Requires iOS 5.1.1 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.



#### #10 – Sky Guide: View Stars Night or Day

By Fifth Star Labs LLC

Category: Reference / Price: \$0.99

Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.



#### #01 - GarageBand

By Apple Category: Music / Price: \$4.99 Compatibility: OS X 10.9 or late



#### #02 – Grim Fandango Remastered

By Double Fine Productions, Inc. Category: Games / Price: \$9.99 Compatibility: OS X 10.7 or later



#### #03 - AntiVirus Sentinel Pro

By Calin Popescu
Category: Utilities / Price: \$9.99
Compatibility: OS X 10.7 or later, 64-bit processor



#### #04 - Day One

By Bloom Built, LLC Category: Lifestyle / Price: \$4.99 Compatibility: OS X 10.9 or later, 64-bit processo



#### #05 – Disk Doctor

By FIPLAB Ltd Category: Utilities / Price: \$2.99 Compatibility: OS X 10.7.3 or later, 64-bit processor



#### #06 – Duplicate Photos Fixer Pro

By Systweak Software Category: Photography / Price: \$0.99 Compatibility: OS X 10.7 or later



#### #07 – Logic Pro X

By Apple Category: Music / Price: \$199.99 Compatibility: OS X 10.8.4 or later, 64-bit processor



#### #08 – Document Writer

By xiong feng Category: Business / Price: \$9.99 Compatibility: OS X 10.7 or later



#### #09 – Notability

By Ginger Labs Category: Productivity / Price: \$5.99 Compatibility: OS X 10.9 or later, 64-bit processor



#### #10 – FaceTime

By Apple Category: Social Networking / Price: \$0.99 Compatibility: OS X 10.6.6 or later







## iTunes **Preview**

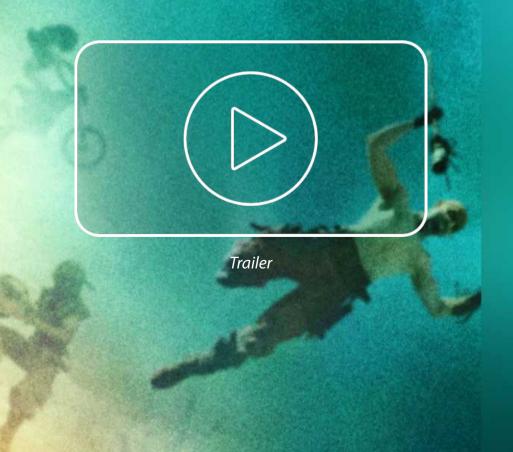






by George Miller Genre: Action & Adventure Released: 2015 Price: \$19.99





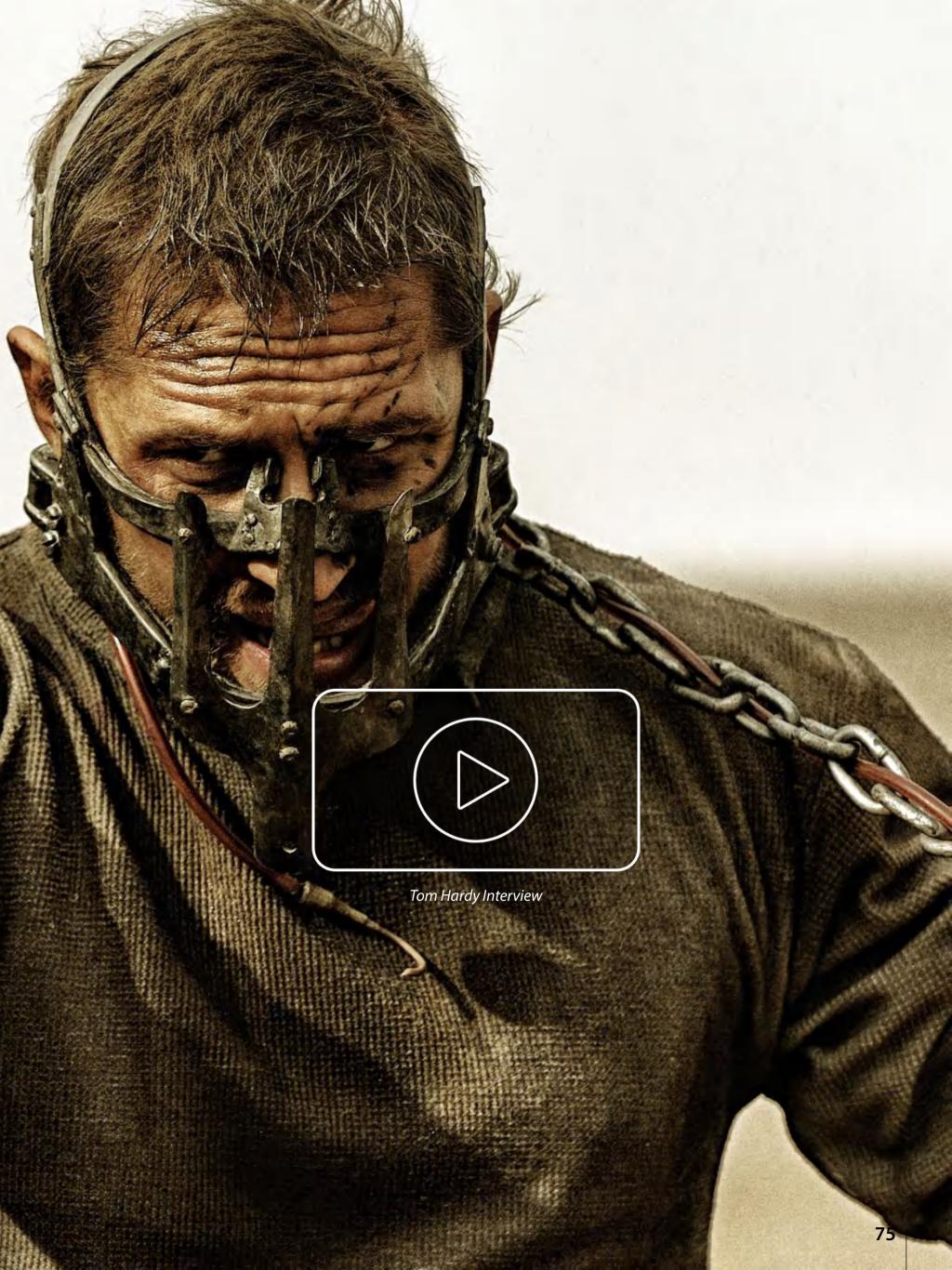
# Mad Max: Fury Road

In a post-apocalyptic desert wasteland where gasoline and water are hard to come by, Max Rockatansky (Tom Hardy), with assistance from Imperator Furiosa (Charlize Theron), mans an armored tanker truck in a bid to escape the sights of cult leader Immortan Joe (Hugh Keays-Byrne). The culmination of this is a long battle on the road.

## **FIVE FACTS:**

- **1.** This is the fourth film in the Mad Max franchise.
- **2.** This movie is, like the three preceding Mad Max movies, directed by George Miller.
- 3. Though Mel Gibson was originally intended to reprise his role as the title character, Miller recast due to "all the turbulence in [Gibson's] life" and a desire for Max to remain a young "contemporary warrior".
- **4.** The movie has received huge critical acclaim; there have even been suggestions that it is **one of the best action movies ever made**.
- 5. In May, Miller revealed that the next Mad Max film will be called Mad Max: The Wasteland.





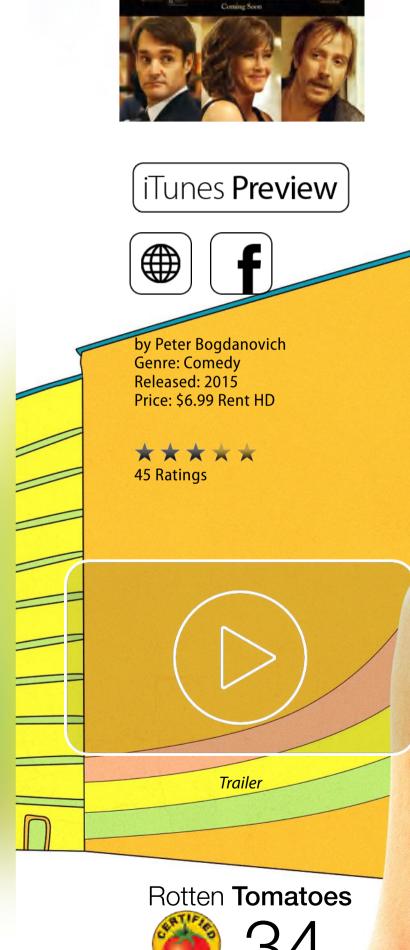
# She's Funny That Way

Broadway director Arnold Albertson (Owen Wilson) casts Isabella "Izzy" Patterson (Imogen Poots) - one of his call girls, but now eager to thrive as an actress - in his latest production, A Grecian Evening. The playwright, Joshua Fleet (Will Forte), then also falls for Izzy, despite dating her therapist Jane Claremont (Jennifer Aniston). These and other characters end up in a calamitous love tangle.

#### **FIVE FACTS:**

- She's Funny That Way is a screwball comedy from the esteemed director Peter Bogdanovich.
- 2. The film's development can be traced back to about 1999 or 2000, when Bogdanovich and his ex-wife Louise Stratten wrote a script which provided the initial spark.
- 3. The movie was originally to be called Squirrels to the Nuts, but was changed as many people mistook it for a children's film.
- 4. At different stages, Brie Larson and Olivia Wilde were cast in Imogen Poots' role, and later dropped out for the same reason: scheduling conflicts.
- 5. This is the first film that Bogdanovich has directed since The Cat's Meow, released in the US in 2002.















## iTunes **Preview**







Genre: Rock Released: Aug 21, 2015 10 Songs Price: \$11.99





Saturday Night Gave Me Sunday Morning

# Burning Bridges Bon Jovi

Firmly established as members of American rock royalty, with hits like "Livin' on a Prayer" and "It's My Life" under their belts, there has understandably been eager anticipation for the release of their thirteenth studio album, what Jon Bon Jovi has called a "fan record": Burning Bridges. It is the band's first studio album without guitarist Richie Sambora.

### **FIVE FACTS:**

- 1. Bon Jovi was formed in 1983.
- 2. The band has sold over 120 million albums worldwide.
- **3.** Jon Bon Jovi says that Burning Bridges includes "songs that weren't finished, that were finished, [and] a couple of new ones".
- **4.** He has also indicated that the album provides "sort of a hint as to where we're going musically, but the new album, the real new album, will be early next year."
- **5.** The album's second single, "We Don't Run", has been described by Billboard as having "meaty production and a shredding guitar solo".







## El Amor Gloria Trevi

Often dubbed the 'Madonna of Mexico', Gloria Trevi has been active since 1989, when she had her first number one hit, "Dr. Psiquiatra". El Amor is her tenth studio album, and could add to her many big musical achievements, which have included topping the Billboard Latin charts with the singles "El Recuentro De Los Daños" and "La papa sin catsup" in 1994.

### **FIVE FACTS:**

- **1.** The music channel VH1 has referred to Trevi as the "Supreme Diva of Mexican Pop".
- 2. Trevi has sold over 20 million albums globally.
- **3.** El Amor has been described as a concept album exploring various aspects of love.
- **4.** The album also includes Trevi's interpretations of classic songs of Latin music.
- 5. In July, Trevi expressed interest in becoming a movie director.



iTunes **Preview** 

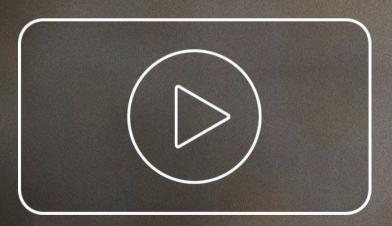






Genre: Latin Pop Released: Aug 21, 2015 14 Songs Price: \$9.99





Como Yo Te Amo











# UNIVERSITY STUDENT PLEADS GUILTY TO MAKING ANDROID SPY APP

A Carnegie Mellon University student who hoped to sell enough malicious software to infect 450,000 Google Android smartphones pleaded guilty Tuesday to a federal law meant to prevent hacking of phones and computers.

But how many phones were actually infected by Morgan Culbertson's malicious creation remained a mystery after his court appearance before a federal judge in Pittsburgh. Infected phones could be remotely controlled by others and used to spy and secretly take pictures without the phone owner's knowledge, as well as to record calls, intercept text messages and otherwise steal information the owners downloaded on the devices.

Culbertson, 20, of Churchill, faces up to 10 years in prison and \$250,000 in fines when he's sentenced Dec. 2. But he'll likely face probation or a short prison term under sentencing guidelines that will take into account his lack of a criminal record.

Culbertson is one of 12 people charged by U.S. authorities, and the fourth to plead guilty so far, in the worldwide takedown of the Darkode.com cybercriminal marketplace.

A total of 70 people have been targeted for allegedly using the cybercriminal marketplace where hackers bought and sold malicious software, and otherwise advertised schemes to infect computers and cellphones with software that could cripple or illegally control the devices.

"I committed the crime, so I am responsible," Culbertson told Senior U.S. District Judge Maurice Cohill Jr. on Tuesday and apologized to those whose phones were affected by the malware.

"I understand what I did was wrong and I take full responsibility," Culbertson said. "I would like in the future to use may skills to help protect people."

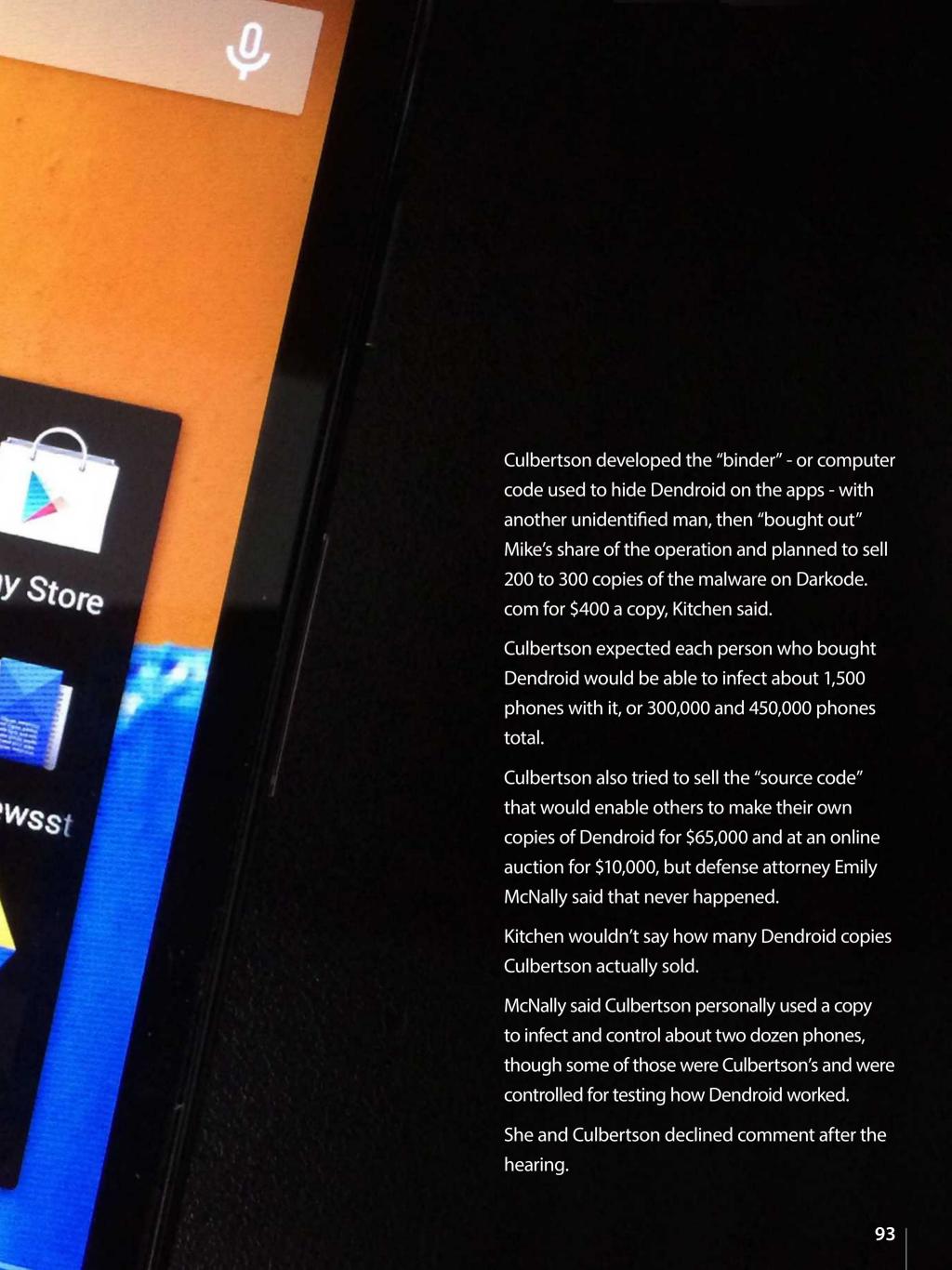
Culbertson said he has taken a leave of absence from Carnegie Mellon, where he's completed his sophomore year. He previously interned for a cybersecurity firm in California's Silicon Valley.

Assistant U.S. Attorney Jimmy Kitchen said Culbertson worked online with a man identified only as "Mike from the Netherlands" to create Dendroid, the malware that was secretly linked to Android phone apps available for purchase through Google Play.













# STUDY: FEMALE DIRECTORS MAKE VVORK GAINS; MINORITIES LAG

Female directors are getting slightly more work in the expanding world of TV series and outlets, but the same can't be said for their minority counterparts, according to a new Directors Guild of America study.

Women directed 16 percent of the nearly 4,000 episodes that aired last season, a year-to-year increase of 2 percent, the guild found.

Minorities, both male and female, directed 18 percent of episodes, a 1 percent dip, according to an analysis of episodes from nearly 280 broadcast, cable and online series from the 2014-15 season.

Both the TV and movie industries have long been under scrutiny for a lack of opportunity for women and minorities, with studies by entertainment unions and others finding that the preference for hiring white men is deeply entrenched. The TV "pie is getting bigger," the directors guild noted in the annual study released Tuesday, with the total of 3,910 episodes representing a 10 percent increase over the previous season. But the video-on-demand services that are contributing to the explosion of choices are also abetting the status quo, the guild said. Netflix, Amazon and PlayStation fielded series that appeared on the guild's "Worst" list of 61 shows that hired women or minority directors for fewer than 15 percent of episodes. Some didn't hire any women or minorities for the season studied, the guild said, including Netflix's "Marco Polo" and PlayStation's "Powers." "The uptick in the number of episodes directed by women - modest but hopeful - is just a drop in the bucket of what needs to be done Image: Chuck Hodes 96



by studios, networks and showrunners before we can begin to realize equal opportunities in television for our members," guild President Paris Barclay said. "With so many more episodes and work opportunities, employers should seize the opportunity for diversity with their choices, especially when it comes to first-time episodic directors."

Of the 128 first-time TV directors hired in the 2014-15 season, 84 percent were male, up from 80 percent in the previous season - hiring that has a "significant impact" on the hiring pool over time, the guild said.

For women, the study found a 21 percent year-to-year growth rate in directing jobs, from 509 episodes in the 2013-14 season to 618 episodes in the 2014-15 window.

While there was a 5 percent increase in the number of episodes directed by minorities - to 694 from 660 in 2013-14 - that represents half the percentage increase in total episodes.

The number of shows without any female or minority directors on the "Worst" list was up 17 percent over the previous season, the study found. Entries from the cable and broadcast world include HBO's "Boardwalk Empire"; Disney Channel's "Girl Meets World"; Fox's "Gracepoint"; Showtime's "Masters of Sex"; and CBS'"Mom."

The 57 shows that made the "Best" list, with at least 40 percent of episodes directed by women or minorities, include "The Game," among three BET series with all minority or female directors; CBS'"The McCarthys"; Fox's "Empire"; ABC's "American Crime"; CW's "Jane the Virgin" and Showtime's "Homeland."





SCIENTISTS
CREATE
360-DEGRE
E IMAGES
OF HAWAII
CORAL REEFS









Alongside the lush and steep windward coast of the Hawaii island of Oahu researchers are creating images of coral reefs that are in danger of dying because of warm ocean waters.

They are taking high-definition 360-degree panoramic images of the reefs and using them to monitor and study the health of corals over time. Scientists working with the team say they are concerned about how much coral off the coast of Hawaii already is beginning to bleach, especially because it's the second such event in two years.

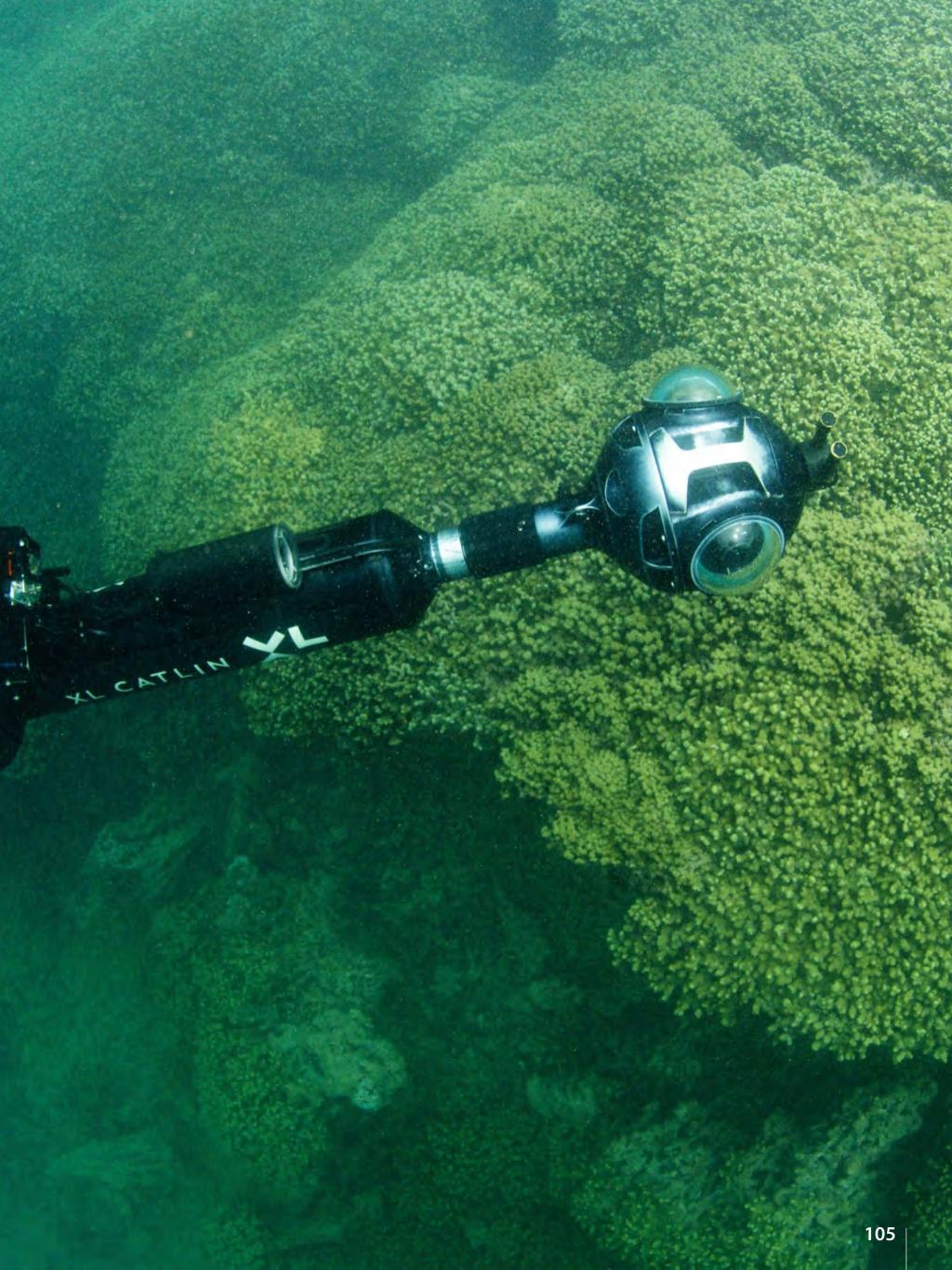
Coral bleaching occurs when ocean water temperatures rise and cause the coral to lose key nutrients, turning the normally colorful organism white. If bleaching recurs or is severe, experts say the coral will die.

Reefs off the coasts of the Hawaiian islands suffered a rare bleaching event in 2014, and experts say when corals don't have time to recover from one bleaching they are less likely to survive subsequent events.

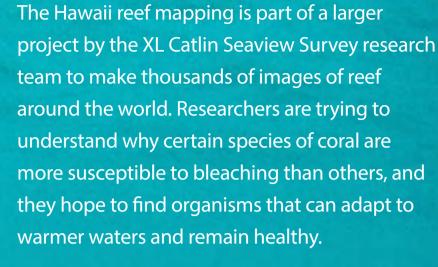
Extensive coral bleaching is expected again this year in Hawaii because of record hot weather in the region, a strong El Nino weather pattern and what scientists call "the blob," a large area of hot water not directly linked to El Nino that is moving westward from the United States mainland.

"Unfortunately, from now on the extra heat is going to be quite damaging, and this is where the mortality of the corals goes up," said Ove Hoegh-Guldberg, director of the Global Change Institute at the University of Queensland and the research team's chief scientist.









The researchers use GPS tags and facial recognition technology to help identify and organize individual reef systems. As part of the project, the survey team has partnered with Google and uploads the images to Google Street View, allowing people to explore the underwater ecosystem via the Internet.

The Seaview Survey has already gathered data from other reefs including those in the Maldives, Mexico, Indonesia and Australia. The team had baseline images of a section of the Great Barrier Reef that was later damaged by a typhoon. The crew went back to capture the damage, giving researchers a clear view of the loss involved with a major storm.











Dr. Manuel Gonzalez-Rivero, a postdoctoral research fellow at the University of Queensland and a member of the survey crew, said the team uses similar technology to what Facebook uses to recognize people in photos.

"We apply that to coral," he said. "We train it in a way so that the machine starts recognizing different types of corals, and it can process about 500,000 images in about a week."

He said that's about 30 to 50 times faster than the traditional method of photographing and processing images of coral for research, allowing them to capture larger areas of all the reefs they visit.

Researchers were out on Hawaii's Kaneohe Bay near the famed hat-shaped island of Mokolii last week. Along with the survey team, three scientists went to two different locations about a mile off shore on the north edge of a reef that runs along a sandbar. While the Seaview Survey crew dived with a specially designed camera and sea scooter system, which houses three wide angle lenses pointed in different directions, the scientists snorkeled and inspected the condition of the organisms near the surface.

"What sort of surprised me is how many corals have already started to bleach," said Malia Chow, National Oceanic and Atmospheric Administration's superintendent of the Hawaiian Islands Humpback Whale National Marine Sanctuary, who was with the survey crew last week.

Online:

http://catlinseaviewsurvey.com









**KILL THE LIGHTS** 

LUKE BRYAN

**WILD ONES (DELUXE)** 

KIP MOORE

THE GREAT UNKNOWN

ROB THOMAS

1989

TAYLOR SWIFT

**DESCENDANTS** 

(ORIGINAL TV MOVIE SOUNDTRACK)

VARIOUS ARTISTS

**MONTEVALLO** 

SAM HUNT

SOUNDS GOOD FEELS GOOD (DELUXE)

5 SECONDS OF SUMMER

JEKYLL + HYDE

ZAC BROWN BAND

BLURRYFACE

TWENTY ONE PILOTS

NATHANIEL RATELIFF & THE NIGHT SWEATS

NATHANIEL RATELIFF & THE NIGHT SWEATS













### TUNEIN RADIO APP STARTS \$8 TIER WITH MLB, SOCCER, AUDIOBOOKS

Tuneln, the app that gives users free access to thousands of live radio stations around the world, is launching an \$8-a-month premium subscription service that throws in ad-free listening, audiobooks and live play-by-play coverage of Major League Baseball and soccer from the Premier League and the Bundesliga.

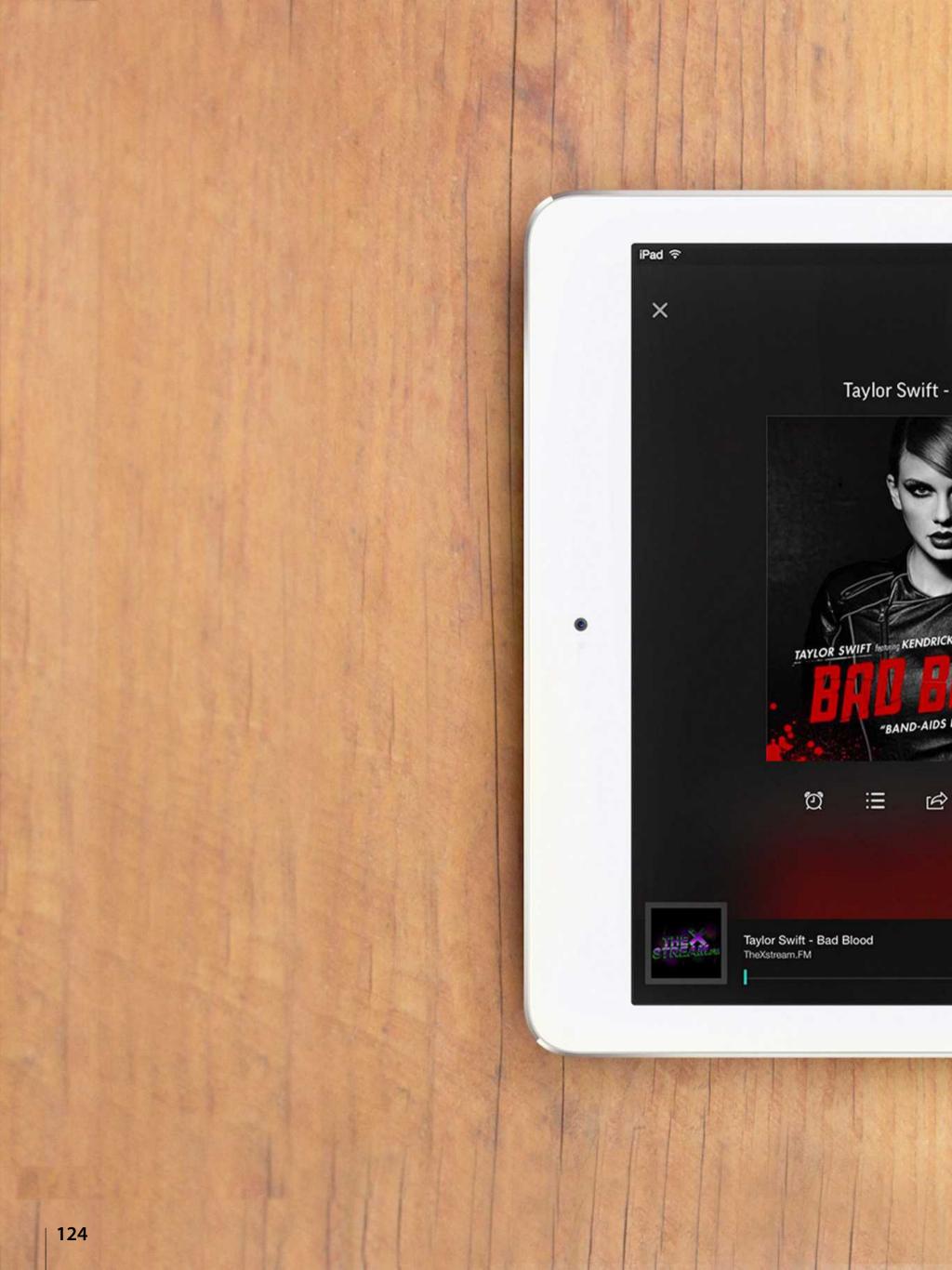
The seemingly disparate offer caters to listeners who have varied tastes, says TuneIn CEO John Donham. That could be news in the morning, music at night, live sports whenever a good game is on, and a good book for long commutes.

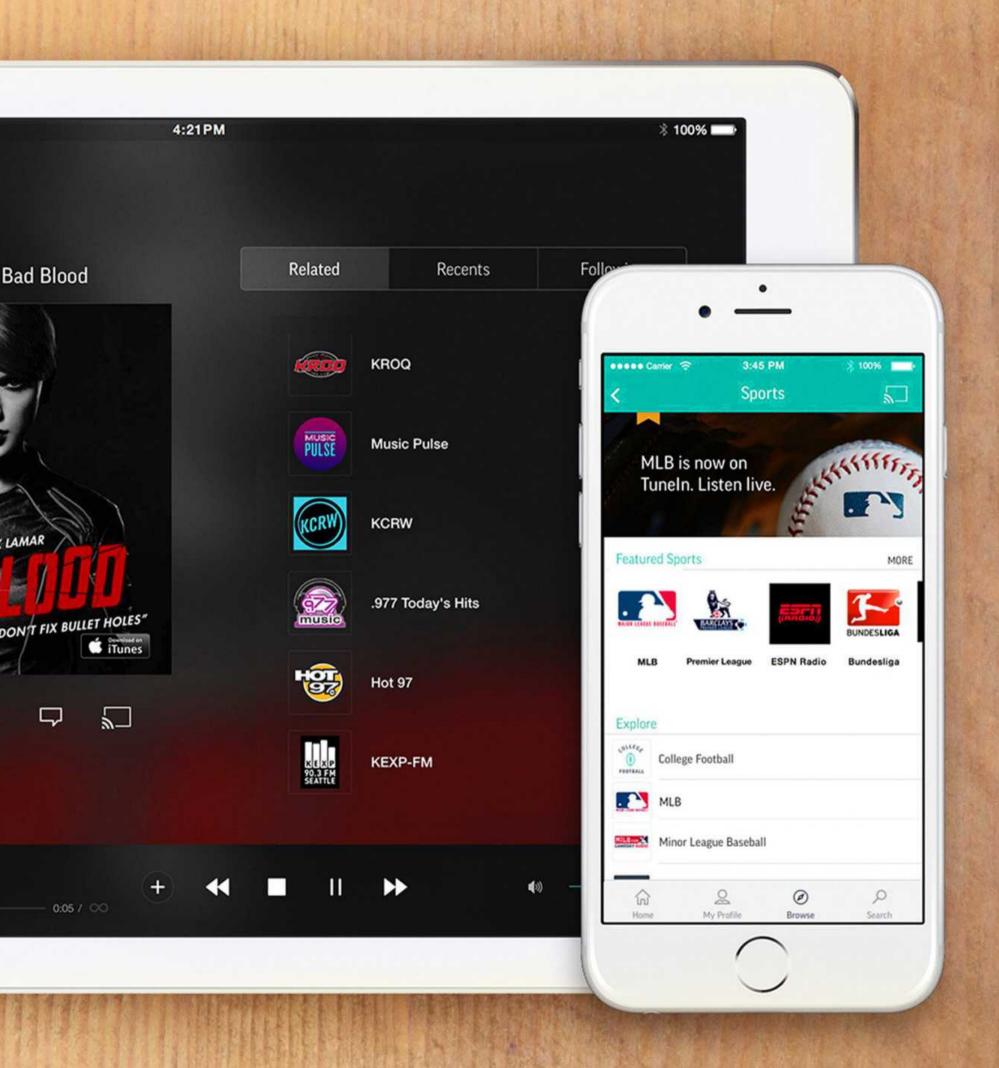
It turns out people want more than just one thing, he says.

The package is meant to emulate the kind of mix one gets from satellite radio giant Sirius XM premium sports, talk shows and commercial-free music. We're out to build a worldwide version of that, Donham says.













The offer launches in the U.S. on Tuesday, as well as in Canada, where it'll cost 9 Canadian dollars a month, and in the U.K., where it'll be 6 pounds a month.

The offer adds 40,000 audiobooks from HarperCollins, Penguin Random House and Scholastic to the few dozen public-domain books already in the app. New titles include Cheryl Strayed's Wild, Sheryl Sandberg's Lean In and George R.R. Martin's A Game of Thrones.

Ad-free listening is initially tailored to 600 Internet radio stations. Terrestrial radio stations in the U.S. and abroad are planned to be added in the next few months, Donham says.

When a DJ cuts to a commercial break, TuneIn knows how long an ad break will be, and for paying subscribers, it will insert a song of roughly the right length that would fit the station's genre. Plugging the ad break of terrestrial stations with a song is a technical problem that will take a little more time to work out, he says.

Launching a paid tier in addition to its free adsupported service is born from the desire to add more content to the site that cannot be paid for simply with ads, Donham says, adding that reducing the number of ads played could actually help push prices up.

If you reduce the number of ads by 10 percent, the value of each ad would go up, he says.

## YOUR BRAND HAS BEEN IN SUCH COOD COMPANY



### APPLEMAGAZINE.COM

It's all about Apple

The right magazine for the right audience

### APPLEMAGAZINE INTERNATIONAL

AppleMagazine Website

**Readr Newsstand** 

**Magzter Newsstand** 

Amazon Newsstand

Scoop Newsstand (Singapore)

Executive Director - ceo@applemagazine.com
Relationship Management - crm@applemagazine.com
Magazine and Website Editor - editor@applemagazine.com
Advertise - ads@applemagazine.com
Social Network - network@applemagazine.com
Promotions - promo@applemagazine.com

### **EXECUTIVE DIRECTOR**

Ivan Castilho Chief Executive Officer / Design Conception

### MINDFIELD DIGITAL ART & GRAPHIC DESIGN

**Glauco Ribeiro** Chief Design Officer / Art & Graphic Design Director

Raphael Vieira Art & Graphic Design Producer

Michael Danglen Art & Graphic Design Produce

**WRITERS** 

Precise English Inc. Benjamin Kerry (UK)

Gavin Lenaghan (UK) Elena Lusk (US)

**Kyron Timbs** (AUSTRALIA)

COLUMNS

**ITUNES REVIEW** 

**Benjamin Kerry** 

FINANCE NEWS **Associated Press / Bloomberg** 

**REVISION** 

**Gavin Lenaghan** 

Elena Lusk

SPECIAL THANKS

Rui da Costa

Lise Berda

James Jarvis

**Lauren Brown Richard Sawyer** 

Roger Gayalkar

**Matthew Coburn** 

Robert Fluellen Raquel Serrano

PRIVACY POLICY

TERMS OF USE applemagazine.com/terms-of-use/

SOCIAL NETWORKS

**Twitter** 

@apple\_magazine
twitter.com/#!/Apple\_Magazine

Facebook facebook.com/applemagazineinternational

**Authorized Publisher** 

AP Associated Press The New York Times BBCNEWS Bloomberg Los Angeles Times

UPI.com Sün PR Newswire Daily Press

AppleMagazine © Copyright 2015-2011. All Rights Reserved.

No part of the document may be circulated, quoted, or reproduced for distribution without prior written approval.

Proper Trademark Notice and Attribution iPad™, iPhone™, iPod™, Mac™, iMac™, Macbook™, iOS™, OS X™ are trademarks of Apple Inc., registered in the US and other countries. Please contact support for additional trademark ownership rights information. The following is a list of Apple's trademarks and service marks http://www.apple.com/legal/trademark/appletmlist.html. All other trademarks are the properties of their owners.

AppleMagazine is an independent publication and has not been authorized, sponsored, or otherwise approved by Apple Inc.

# Apple Apple